

IN THE CLAIMS:

Sub DI 1 (Original) A tool with a tool body and a wear resistant layer system, said layer system comprising at least one layer of MeX, wherein

Me comprises titanium and aluminum;

X is at least one of nitrogen and of carbon

and wherein said layer has a Q_I value

$$Q_I \geq 1 \quad \text{overlap} \quad \leq 2$$

and said tool body is of one of the materials

high speed steel (HSS);

cemented carbide,

and wherein said tool is not a solid carbide end mill and not a solid carbide ball nose mill

C7 whereby the value of $I_{(200)}$ is at least 20 times the intensity average noise value, both measured according to MS.

2. (Previously amended) The tool of claim 1, wherein the tool is selected from a group consisting of a cemented carbide insert, a cemented carbide drill and a cemented carbide gear cutting tool.

3. (Previously amended) The tool of claim 1 wherein there is valid for said Q_I :

$$Q_I \geq 2.$$

4. (Previously amended) The tool of claim 1, wherein said MeX material is selected from the group consisting of titanium aluminum nitride, titanium aluminum carbonitride, and titanium aluminum boron nitride.

5. (Previously amended) The tool of claim 1, wherein Me comprises at least one further element selected from the group consisting of boron, zirconium, hafnium, yttrium, silicon, tungsten, and chromium.

6. (Original) The tool of claim 5, wherein said further element is contained in Me with a content i

$$0.05 \text{ at.} \% \leq i \leq 60 \text{ at.} \%,$$

taken Me as 100 at.%.

7. (Original) The tool of claim 1, further comprising a further layer of titanium nitride between said at least one layer and said tool body and wherein said further layer has a thickness d, for which there is valid

$$0.05 \text{ } \mu\text{m} \leq d \leq 5.0 \text{ } \mu\text{m}.$$

8. (Original) The tool of claim 7, wherein said layer system is formed by said at least one layer and said further layer.

9. (Previously amended) The tool of claim 1, wherein the stress within said at least one layer, σ , is

~~1 GPa $\leq \sigma \leq$ 6 GPa.~~

Sub D1 { 10. (Previously amended) The tool of claim 1, wherein the content x of titanium in said Me is:

~~70 at.% $\geq x \geq$ 40 at.%.[~]~~

11. (Previously amended) the tool of claim 1, wherein the content y of aluminum in said Me is:

~~30 at.% $\leq y \leq$ 60 at.%.[~]~~

12. (Previously amended) The tool of claim 10, wherein the content y of aluminum in said Me is:

C1 ~~30 at.% $\leq y \leq$ 60 at.%.[~]~~

13.-22. (Cancelled) ✓

23. (Previously added as Claim 24) [Renumbered] The tool of claim 1, wherein $Q_I \geq 5$.

24. (Previously added as Claim 25) [Renumbered] The tool of claim 1, wherein $Q_I \geq 10$.

25. (Previously added as Claim 26) [Renumbered] The tool of claim 1, wherein 1 GPa $\leq \sigma \leq$ 4 GPa.

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26. (Previously added as Claim 27) [Renumbered] The tool of claim 1,
wherein $1.5 \text{ GPa} \leq \sigma \leq 2.5 \text{ GPa}$.

27. (Previously added as Claim 28) [Renumbered] The tool of claim 1,
wherein the content of x of titanium in said Me is
 $65 \text{ at.} \% \geq x \geq 55 \text{ at.} \%$.

28. (Previously added as Claim 29) [Renumbered] The tool of claim 1,
wherein the content of aluminum in said Me is
 $35 \text{ at.} \% \leq y \leq 45 \text{ at.} \%$.

29. (Previously added as Claim 30) [Renumbered] The tool of claim
10, wherein the content y of aluminum in said Me is
 $35 \text{ at.} \% \leq y \leq 45 \text{ at.} \%$.

30. (Previously added as Claim 31) [Renumbered] The tool of claim
30, wherein the content of x of titanium in said Me is
 $65 \text{ at.} \% \geq x \geq 55 \text{ at.} \%$.

31. (New) A tool with a tool body and a wear-resistant layer system,
said system comprising at least one MeX layer, wherein for said at least one MeX
layer

Me comprises titanium and aluminum;

X is at least one of nitrogen and of carbon

Sub D1 }
and wherein said layer has a Q_I value

$$Q_I \geq 1$$

and said tool body is of one of the materials

high speed steel (HSS);

cemented carbide,

C1 and wherein said tool is not a solid carbide end mill and not a solid carbide

ball nose mill

whereby the value of $I(200)$ is at least 20 times the intensity average noise value, both measured according to MS.